

MINIMUM AUDIT POINTS FOR NASA-STD-8719.11

Regulations

- ▶ **NASA Center Directors** shall implement a fire protection program containing the following elements:
 - Designation of an “Authority Having Jurisdiction” (AHJ) as required by the National Fire Codes (NFC) and other code criteria.
 - **Objective Quality Evidence (OQE) – AHJ Designation Letter**
 - Compliance with local, State, and Federal law, and National Codes and criteria for fire protection.
 - **OQE – Code Books**
 - Review of all contract documents for fire protection specifications.
 - **OQE – Review Signature on Contracts**
- ▶ **Each NASA Center** shall develop a Fire Prevention Program that includes, as a minimum, requirements of NFPA 1 and NASA-STD-8719.11.
 - **OQE – Fire Protection Program**
- ▶ All fire protection equipment shall be UL listed or have FM or AHJ approved testing laboratory approval for the intended purpose.
 - **OQE – Equipment Certification Papers or Label Affixed to Equipment**
- ▶ Portable fire extinguishers shall be provided, inspected, and maintained in accordance with NFPA 10, 29 CFR 1910.157, and this standard.
 - **OQE – Fire Extinguisher Records for Purchase, Inspection and Maintenance**
- ▶ The fire alarm system shall be designed, installed, tested, and maintained in accordance with the provisions of NFPA 70, 72, 101, and 29 CFR 1910.165.
 - **OQE – Fire Alarm Design, Installation, Testing and Maintenance Records**
- ▶ The storage, possession, or use of flammable and combustible liquids is prohibited except for nonsubstitute essential applications approved by the Fire Department or Safety Official.
 - **OQE - Flammable Materials Storage Lockers and Fire Inspections**



YOUR PREPAREDNESS FOR AN
AUDIT OF NASA FIRE PROTECTION
REQUIREMENTS WITH THESE SAMPLE
AUDIT GUIDE QUESTIONS.

MANAGEMENT:

1. Have emergency action plans and fire protection program plans been developed?

TRAINING:

1. Is there a Fire Safety Education Program implemented at the Center?

FIRE SERVICE OPERATIONS:

1. Have civil service or contracted fire departments developed and implemented a written Fire Service Operations Plan that ensures compliance with NFPA, OSHA, FAA, and NASA requirements?

FIRE PROTECTION EQUIPMENT:

1. How is it ensured that fire extinguishing systems comply with the National Fire Protection (NFPA) codes and standards?
2. Is there a life cycle review and replacement program for fire suppression and protection equipment?

FIRE PREVENTION:

1. Are annual facility surveys/risk analyses performed to identify fire safety hazards and deficiencies?



NASA
SAFETY AND MISSION
ASSURANCE
REQUIREMENTS

NASA-STD-8719.11

Safety Standard for Fire Protection

Compliance Verification Guide



OFFICE OF SAFETY AND
MISSION ASSURANCE

NASA Office of Safety and Mission Assurance
300 E Street SW
Washington DC 20024-3210
Phone (202) 358-0521
www.hq.nasa.gov/office/codeq

Publication Date March 23, 2005

This brochure is intended to be used as a guide only, not as a replacement for the actual policy. To review procedures for NASA Safety Standards for Fire Protection (NASA-STD-8719.11) in its entirety, see <http://www.hq.nasa.gov/office/codeq/doctree/texttree.htm>

Why do we have a “Safety Standard for Fire Protection” Policy?

To put in place fire prevention, detection, and control measures that ensures a fire-safe environment.

MINIMUM POINTS FOR NASA-STD-8719.11 (CONTINUED)

Regulations

- ▶ Fires meeting the definition of a “close call” as defined by the “NASA Safety Manual,” shall be reported.
 - OQE - Fire Reports & Fire Investigation Reports

Plans

- ▶ **NASA Center Directors** shall implement a fire protection program containing:
 - Proper functioning of the NASA Center Fire Department and/or coordination with the fire department.
 - Investigation and reporting of fires.
 - Development of emergency action plans and NASA Center fire protection program plan and policy statement.
 - OQE – Center Fire Protection Program
 - Annual facility surveys/risk analyses to identify fire safety deficiencies.
 - OQE – Annual Fire Safety Deficiency Survey/Risk Analysis Chapter.
 - Reporting and tracking of fire protection deficiencies.
 - OQE – Fire Protection Deficiency Reporting and Tracking Chapter.
 - Review of maintenance programs for fire protection equipment and systems.
 - OQE – Equipment and Systems Maintenance Review Chapter.
 - Review and correction of fire safety violations (e.g., work orders for repair, construction, follow-up, and acceptance).
 - OQE – Fire safety violation Review and Correction Chapter.
 - A lifecycle review and replacement program for fire suppression and protection equipment.

- OQE – Lifecycle Review and Replacement Chapter.

Construction of Facilities (CoF)

- ▶ **Director, Safety and Risk Management Division**, shall provide fire protection advocacy for Construction of Facilities (CoF) projects.
 - OQE – Fire Protection Inputs on CoF Contracts
- ▶ **NASA Center Directors** shall implement a fire protection program including the submittal of CoF projects to correct fire protection deficiencies.
 - OQE – Fire Deficiency CoF Projects/Contracts.
- ▶ **Each NASA Center Director** shall ensure that appropriate levels of fire service operations are provided to protect lives and property based on the size and mission of their Center.
 - OQE – Centers Fire Risk Assessment.

Training and Drills

- ▶ **Director, Safety and Risk Management Division**, shall provide technical assistance to NASA Centers.
- ▶ **NASA Center Directors** shall implement a fire protection program that includes facility fire inspections and fire safety training.
 - OQE – Facility fire Inspection and Training Records.
- ▶ Where portable fire extinguishers are provided for employee use, training shall be provided in accordance with 29 CFR 1910.157.
 - OQE – Fire Extinguisher Training Records
- ▶ Fire drills shall be conducted annually in all facilities occupied by ten or more persons.
 - OQE – Fire Drill Records
- ▶ **All new employees** shall receive training on emergency fire systems within thirty days of employment.
 - OQE – Employee Training Records
- ▶ Evacuation drills and periodic tests of the central alarm monitoring systems shall be conducted in accordance with NFPA 1, and 29 CFR 1910.38.
 - OQE – Drill/Alarm Test Records.

The U.S. has one of the highest fire death rates in the industrialized world.

Each year, fire kills more Americans than all natural disasters combined.

About 100 firefighters are killed each year in duty-related incidents.

- ▶ Adopt, implement, and train in the use of the Incident Management System (IMS) in accordance with NFPA 1561 when responding and managing any emergency or disaster.
 - OQE – IMS Plan and Training Records

Operations

- ▶ **NASA Center Directors** shall implement a fire protection program including control of flammable materials and hazardous operations.
 - OQE – Flammable Materials and Hazardous Operations Chapters in Centers’ Fire Protection Program.
- ▶ Good housekeeping in all operations is essential for effective fire prevention.

Review

- ▶ **Director, Safety and Risk Management Division**, shall review NASA Center fire protection programs.
 - OQE – Fire Protection Review.
- ▶ **Persons trained to recognize fire-related problems** shall conduct fire prevention inspections with a written document developed for each inspection.
 - OQE – Training Records and Inspection Records.

Do you know what to do in case of a fire?

When was the last time you participated in a fire drill?

Where is the evacuation placard in your work place?